

<b>TRANSMITTAL LETTER TO THE UNITED STATES DESIGNATED/ELECTED OFFICE (DO/EO/US) CONCERNING A SUBMISSION UNDER 35 U.S.C. 371</b>		ATTORNEY'S DOCKET NUMBER 63283(50221)
INTERNATIONAL APPLICATION NO. PCT/GB2003/004493	INTERNATIONAL FILING DATE 16 October 2003	U.S. APPLICATION NO. (If known, see 37 CFR 1.5) <b>10/531193</b>
TITLE OF INVENTION MARKER GENE		PRIORITY DATE CLAIMED 16 October 2002
APPLICANT(S) FOR DO/EO/US MIYAZAWA, Masaaki, <i>et al.</i>		

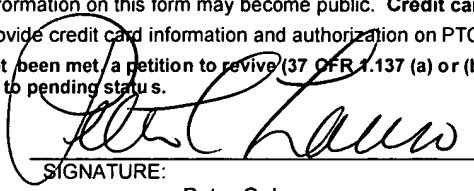
Applicant herewith submits to the United States Designated/Elected Office (DO/EO/US) the following items and other information:

1. ☒ This is a **FIRST** submission of items concerning a submission under 35 U.S.C. 371.
2. ☐ This is a **SECOND** or **SUBSEQUENT** submission of items concerning a submission under 35 U.S.C. 371.
3. ☐ This is an express request to begin national examination procedures (35 U.S.C. 371 (f)). The submission must include items (5), (6), (9) and (21) indicated below.
4. ☒ The US has been elected (Article 31).
5. ☒ A copy of the International Application as filed (35 U.S.C. 371 (c)(2))
  - a. ☐ is attached hereto (required only if not communicated by the International Bureau).
  - b. ☒ has been communicated by the International Bureau.
  - c. ☐ is not required, as the application was filed in the United States Receiving Office (RO/US).
6. ☐ An English language translation of the International Application as filed (35 U.S.C. 371 (c)(2)).
  - a. ☐ is attached hereto.
  - b. ☐ has been previously submitted under 35 U.S.C. 154(d)(4).
7. ☒ Amendments to the claims of the International Application under PCT Article 19 (35 U.S.C. 371 (c)(3))
  - a. ☐ are attached hereto (required only if not communicated by the International Bureau).
  - b. ☐ have been communicated by the International Bureau.
  - c. ☐ have not been made; however, the time limit for making such amendments has NOT expired.
  - d. ☒ have not been made and will not be made.
8. ☐ An English language translation of the amendments to the claims under PCT Article 19 (35 U.S.C. 371 (c)(3)).
9. ☐ An oath or declaration of the inventor(s) (35 U.S.C. 371 (c)(4)).
10. ☐ An English language translation of the annexes of the International Preliminary Examination Report under PCT Article 36 (35 U.S.C. 371 (c)(5)).

**Items 11 to 20 below concern document(s) or information included:**

11. ☒ An Information Disclosure Statement under 37 CFR 1.97 and 1.98.
12. ☐ An assignment document for recording. A separate cover sheet in compliance with 37 CFR 3.28 and 3.31 is included.
13. ☒ A preliminary amendment.
14. ☒ An Application Data Sheet under 37 CFR 1.76.
15. ☐ A substitute specification.
16. ☐ A power of attorney and/or change of address letter.
17. ☐ A computer-readable form of the sequence listing in accordance with PCT Rule 13ter.2 and 37 CFR 1.821 - 1.825.
18. ☐ A second copy of the published International Application under 35 U.S.C. 154(d)(4).
19. ☐ A second copy of the English language translation of the international application under 35 U.S.C. 154(d)(4).
20. ☒ Other items or information: Return Receipt Postcard; Unexecuted Declaration, Petition and Power of Attorney

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U.S. APPLICATION NO. <b>10/531193</b>		INTERNATIONAL APPLICATION NO. PCT/GB2003/004493		ATTORNEY'S DOCKET NUMBER 63283(50221)	
The following fees have been submitted				CALCULATIONS	PTO USE ONLY
21. <input checked="" type="checkbox"/> Basic national fee ..... \$300				\$ 300.00	
22. <input checked="" type="checkbox"/> Examination fee If International preliminary examination report prepared by USPTO and all claims satisfy provisions of PCT Article 33(1)-(4) ..... \$100 All other situations ..... \$200				\$ 200.00	
23. <input checked="" type="checkbox"/> Search fee Search fee (37 CFR 1.445(a)(2)) has been paid on the international application to the USPTO as an International Searching Authority ..... \$100 International Search Report prepared and provided to the Office ..... \$400 All other situations ..... \$500				\$ 500.00	
<b>TOTAL OF 21, 22 and 23 =</b>				\$ 1,000.00	
<input type="checkbox"/> Additional fee for specification and drawings filed in paper over 100 sheets (excluding sequence listing or computer program listing filed in an electronic medium). The fee is \$250 for each additional 50 sheets of paper or fraction thereof.					
Total Sheets	Extra sheets	Number of each additional 50 or fraction thereof (round up to a whole number)	RATE		
- 100 =	/50 =		x \$250.00		
Surcharge of \$130.00 for furnishing the oath or declaration later than 30 months from the earliest claimed priority date (37 CFR 1.492 (e)).				\$ 130.00	
CLAIMS	NUMBER FILED	NUMBER EXTRA	RATE		
Total claims	43 - 20 =	23	x 50.00	\$ 1,150.00	
Independent claims	9 - 3 =	6	x 200.00	\$ 1,200.00	
MULTIPLE DEPENDENT CLAIM(s) (if applicable)				\$	
<b>TOTAL OF ABOVE CALCULATIONS =</b>				\$ 3,480.00	
<input type="checkbox"/> Applicant claims small entity status. See 37 CFR 1.27. Fees above are reduced by 1/2.				\$	
<b>SUBTOTAL =</b>				\$ 3,480.00	
Processing fee of \$130.00 for furnishing the English translation later than 30 months from the earliest claimed priority date (37 CFR 1.492 (f)).				+	\$
<b>TOTAL NATIONAL FEE =</b>				\$ 3,480.00	
Fee for recording the enclosed assignment (37 CFR 1.21 (h)). The assignment must be accompanied by an appropriate cover sheet (37 CFR 3.28, 3.31). \$40.00 per property				+	\$
<b>TOTAL FEES ENCLOSED =</b>				\$ 3,480.00	
				Amount to be refunded:	\$
				Amount to be charged:	\$
a. <input type="checkbox"/> A check in the amount of \$ _____ to cover the above fees is enclosed. b. <input checked="" type="checkbox"/> Please charge my Deposit Account No. <u>04-1105</u> in the amount of \$ <u>3,480.00</u> to cover the above fees. A duplicate copy of this sheet is enclosed. c. <input checked="" type="checkbox"/> The Commissioner is hereby authorized to charge any additional fees which may be required, or credit any overpayment to Deposit Account No. <u>04-1105</u> . A duplicate copy of this sheet is enclosed. d. <input type="checkbox"/> Fees are to be charged to a credit card. <b>WARNING:</b> Information on this form may become public. <b>Credit card information should not be included on this form.</b> Provide credit card information and authorization on PTO-2038.					
NOTE: Where an appropriate time limit under 37 CFR 1.495 has not been met, a petition to revive (37 CFR 1.137 (a) or (b)) must be filed and granted to restore the International Application to pending status.					
SEND ALL CORRESPONDENCE TO:					
Peter C. Lauro EDWARDS & ANGELL, LLP P.O. Box 55874 Boston, Massachusetts 02205 (617) 439-4444 CUSTOMER NUMBER: 21874					
				SIGNATURE:	
				NAME	Peter C. Lauro
				REGISTRATION NUMBER	32,360

Application No. (if known): Not Yet Assigned

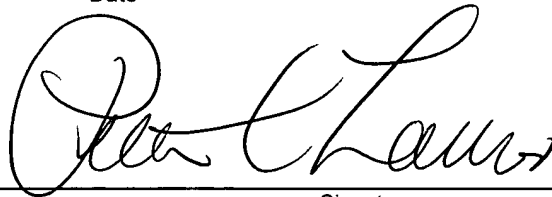
Attorney Docket No.: 63283(50221)

## Certificate of Express Mailing Under 37 CFR 1.10

I hereby certify that this correspondence is being deposited with the United States Postal Service as Express Mail, Airbill No. EV 492344898 US in an envelope addressed to:

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on April 13, 2005  
Date



Signature

Peter C. Lauro

Typed or printed name of person signing Certificate

32,360  
Registration Number, if applicable

(617) 439-4444  
Telephone Number

Note: Each paper must have its own certificate of mailing, or this certificate must identify each submitted paper.

Fee Transmittal (1 page)  
Application Data Sheet (2 pages)  
Unexecuted Oath or declaration of the inventor(s) (4 pages)  
Information Disclosure Statement (2 pages)  
Form PTO 1449 List of Publications Cited by Applicant (2 pages)  
Preliminary Amendment (13 pages)  
Transmittal Letter to the United States Designated-Elected Office (2 pages)  
Charge \$3,480.00 to deposit account 04-1105  
Return Receipt Postcard

10/531193  
JC12 Rec'd PCT/PTC 13 APR 2005

PTO/SB/17 (12-04v2)  
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U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

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<p><i>Effective on 12/08/2004.</i> Fees pursuant to the Consolidated Appropriations Act, 2005 (H.R. 4818).</p> <h2 style="margin: 0;">FEE TRANSMITTAL</h2> <h3 style="margin: 0;">For FY 2005</h3>		<p><b>Complete if Known</b></p>	
<input type="checkbox"/> Applicant claims small entity status. See 37 CFR 1.27		Application Number	
		Not Yet Assigned	
		Filing Date	
		First Named Inventor	
		MIYAZAWA, Masaaki	
		Examiner Name	
		Not Yet Assigned	
		Art Unit	
		N/A	
TOTAL AMOUNT OF PAYMENT		(\$)	
3,480.00		Attorney Docket No.	
		63283(50221)	

**METHOD OF PAYMENT** (check all that apply)

☐ Check  
 ☐ Credit Card  
 ☐ Money Order  
 ☐ None  
 ☐ Other (please identify): \_\_\_\_\_

☒ Deposit Account  
 Deposit Account Number: 04-1105  
 Deposit Account Name: Edwards & Angell, LLP

For the above-identified deposit account, the Director is hereby authorized to: (check all that apply)

☒ Charge fee(s) indicated below  
 ☐ Charge fee(s) indicated below, except for the filing fee

☐ Charge any additional fee(s) or underpayment of fee(s) under 37 CFR 1.16 and 1.17  
 ☒ Credit any overpayments

**FEE CALCULATION**

**1. BASIC FILING, SEARCH, AND EXAMINATION FEES**

Application Type	FILING FEES		SEARCH FEES		EXAMINATION FEES		Fees Paid (\$)
	Fee (\$)	Small Entity Fee (\$)	Fee (\$)	Small Entity Fee (\$)	Fee (\$)	Small Entity Fee (\$)	
Utility	300	150	500	250	200	100	
Design	200	100	100	50	130	65	
Plant	200	100	300	150	160	80	
Reissue	300	150	500	250	600	300	
Provisional	200	100	0	0	0	0	

**2. EXCESS CLAIM FEES**

Fee Description	Fee (\$)	Small Entity Fee (\$)
Each claim over 20 (including Reissues)	50	25
Each independent claim over 3 (including Reissues)	200	100
Multiple dependent claims	360	180

Total Claims    Extra Claims    Fee (\$)    Fee Paid (\$)    Multiple Dependent Claims  
 43    - 20 =    23    x    50.00    =    \$1,150.00    Fee (\$)    Fee Paid (\$)

Indep. Claims    Extra Claims    Fee (\$)    Fee Paid (\$)  
 9    - 3 =    6    x    200.00    =    \$1,200.00

**3. APPLICATION SIZE FEE**

If the specification and drawings exceed 100 sheets of paper (excluding electronically filed sequence or computer listings under 37 CFR 1.52(e)), the application size fee due is \$250 (\$125 for small entity) for each additional 50 sheets or fraction thereof. See 35 U.S.C. 41(a)(1)(G) and 37 CFR 1.16(s).

Total Sheets	Extra Sheets	Number of each additional 50 or fraction thereof	Fee (\$)	Fee Paid (\$)
_____	_____	_____ / 50 _____ (round up to a whole number) x _____ = _____		

**4. OTHER FEE(S)**

	Fees Paid (\$)
Non-English Specification, \$130 fee (no small entity discount)	
Other (e.g., late filing surcharge):	
1631 Basic National Stage fee	300.00
1633 National Stage Examination Fee - all other ...	200.00
1632 National Stage Search Fee - all other situations	500.00
1617 National Stage oath or declaration after thirty ...	130.00

<b>SUBMITTED BY</b>			
Signature		Registration No. (Attorney/Agent)	32,360
Name (Print/Type)	Peter C. Lauro	Telephone	(617) 439-4444
		Date	April 13, 2005

I hereby certify that this correspondence is being deposited with the U.S. Postal Service as Express Mail, Airbill No. EV 492344898 US, in an envelope addressed to: MS PCT, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450, on the date shown below.

Dated: April 13, 2005      Signature: (Peter C. Lauro)